

SOME DIPTERA FROM ARIZONA.

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In a collection of Diptera, taken in Arizona by J. Thomas Lloyd, of Cincinnati, Ohio, during the summer of 1902, I find some species of sufficient importance to warrant recording notes concerning them at this time.

Chrysops proclivis, O. S.—Specimens of this species were taken in Oak Creek Canyon, July 5th. I have not seen a record of the species from this territory heretofore.

Tabanus hyalinipennis, n. sp.—Female. Eyes bare; length 15 mm.; antennæ entirely black; proboscis black; palpi yellowish, with short white hairs; face and front brown, but this colour concealed by gray pollen; lower part of face and cheeks clothed with long white hair; front rather narrow, slightly narrowed below; frontal callosity shining brown, nearly square, and as wide as the front and with a linear prolongation above it; thorax reddish above, with four distinct black stripes, which extend back to the scutellum; margin of scutellum reddish, with white hair, remainder blackish, with black hair; femora black, with gray pollen and white hair; tibiæ reddish; apices black, or at least dark; tarsi black; wings entirely hyaline; veins and stigma brown, all the posterior cells wide open. Abdomen black dorsally; first segment broadly white on each side; posterior margin narrowly white, and a white spot beneath the scutellum; second segment with a prominent white triangle on each side of the middle and a white hind margin, which is three or four times as wide external to the triangles as between them; third segment with a narrow white marking on each side corresponding to the lateral triangles of the previous segment and white hind margin, which expands at the middle into a prominent spot, truncate before and attaining the middle of its segment; fourth segment with a narrow white hind margin, which expands into a prominent median triangle, which attains the anterior border of its segment; fifth, sixth and seventh segments with very narrow white hind margins. Ventrally the abdomen is dark, darkest on the middle, and clothed with gray pollen.

Habitat.—Oak Creek Canyon. Several specimens, two of which are before me; one taken July 2nd and the other July 7th.

In form and appearance the species suggests *T. trimaculatus*, but the hyaline wings, the abdominal markings and smaller size are distinctive. It lacks the large median white triangle on the second segment, so conspicuous in *sodalis*.

Leptomysus venosus, Lw.—The species of this genus seem not to be easily recognized, because the sexes of each species are widely different, and all the original descriptions were written from a single sex, some from males and some from females. In the collection before me are the sexes of a species, the male of which agrees very well with *venosus*. I give below the descriptions of both sexes, hoping that such may be of use to some future student of the group :

Male.—Head and its appendages black ; face and front clothed with long yellowish gray pile. Thorax black, with four light-coloured stripes above ; anterior and middle legs black, with extreme bases of all the tibiæ yellowish ; broad bases of posterior femora and tibiæ yellow, otherwise these legs are black or brown ; wings uniform dilute yellowish. Abdomen reddish ; posterior margins or all the segments narrowly yellow, and on each side of the second segment the yellow margin surrounds a small reniform black spot ; anterior margins of all the segments black ; the first segment is wholly black, except the yellow hind margin, and on the sixth and seventh segments the black is mostly confined to the sides. Length 15 mm.

Female.—Whole insect reddish-yellow ; eyes, proboscis and part of front blackish ; thorax with light yellow stripes ; abdominal segments margined behind with distinct light yellow ; on each side of the second segment this yellow margin includes a small reniform black spot ; spines at end of abdomen red ; wings coloured as in the male. Length 19 mm.

In both male and female the first posterior cells of the wings are wide open.

Habitat.—Both sexes taken in Oak Creek Canyon, June 30th.

In the female the black proboscis, the lack of black stripes on the lateral margins of segments (two to seven) and the red spines at the end of the abdomen serve to distinguish this sex from *brachyrhynchus* of Osten Sacken.

Myiolepta aurinota, n. sp.—Male. Length 9 mm. In general coloration the antennæ are reddish, but the first two segments are darker and more shining than the third ; arista at base concolorous with the

segment that bears it, at apex darker. Region surrounding the ocelli, a space above the antennæ, a triangular spot on the face, including the facial callosity and cheeks, shining black; remainder of the face and front gray pollinose, with sparse white hairs near the eyes. Mesonotum, including the scutellum, entirely densely clothed with coarse golden hair; pleura with white hair; wings nearly hyaline, but from certain views they appear slightly clouded; general colour of legs black, with white hair; all the tibiæ yellowish at base; first two segments of each of the middle and hind tarsi yellow; first two segments of each front tarsus dusky, but lighter in colour than the three remaining segments; all the femora swollen, and with short black spines below on apical parts. Abdomen black, clothed on dorsum with black and golden hair, on sides with white hair; the black hair of the dorsum is very short, and distributed as follows: the anterior half of the second segment, a rectangular patch on anterior middle of the third segment, occupying two-thirds of the length and over half of the width of this segment, and a triangular patch on the anterior third of the fourth segment. The golden hair is longer and coarser than the black, and most dense on the fourth segment. The first segment, and all the sutures between segments, are thinly gray pollinose, giving the effect to the unaided eye of gray bands.

Habitat.—Phoenix, Arizona. Taken June 18th.

The species has most affinities with *strigilata*, Loew, and *auricaudata*, Williston, but on comparison with the former species in the U. S. National Museum, I find the two have a very different appearance. From the latter the coloration of the abdomen and legs, the lack of "golden tomentum" on the frontal triangle, and the larger size are sufficient to distinguish it. In accordance with what has been observed in related species, I should expect that the vestiture of the female is paler than in the male.

Milesia bella, Townsend.—Several specimens of this beautiful syrphid were taken at Elden Mountain, June 17th. The black front tibiæ and tarsi and the thoracic markings easily distinguish the species from *ornata*, Say, which is our common eastern member of the genus. A reference to Townsend's fine description in the Annals and Magazine of Natural History, Ser. 6, Vol. XIX., 142, will reveal the characters of *bella* and its differences from *ornata*. Townsend's types were taken in southern New Mexico.